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(21) International Application Number: PCT/EP99/01403 (22) International Filing Date: 2 March 1999 (02.03.99) (30) Priority Data: 98200643.9 2 March 1998 (02.03.98) EP (71) Applicant (for all designated States except US): KONINKLIJKE KPN N.V. [NL/NL]; Stationsplein 7, NL-9726 AE Groningen (NL). (72) Inventors; and (75) Inventors/Applicants (for US only): HEKSTRA, Andries, Pieter [NL/NL]; Louise de Coligny laan 11, NL-2252 KM Voorschoten (NL). BEERENDS, John, Gerard [NL/NL]; Kikkerstraat 20, NL-2515 NB Den Haag (NL). KOENEN, Robert, Hendrik [NL/NL]; Cargadoorskade 30, NL-3071 AW Rotterdam (NL). DE CALUWE, Franciscus, Elisabeth [NL/NL]; Magalhaensplein 71, NL-1057 VE Amsterdam (NL). (74) Agent: KLEIN, Bart; Koninklijke KPN N.V., P.O. Box 95321, NL-2509 CH The Hague (NL).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: METHOD AND ARRANGEMENT FOR OBJECTIVE ASSESSMENT OF VIDEO QUALITY

(57) Abstract

A method of and an arrangement for obtaining quality indicators for an objective assessment of a degraded or output video signal (11) with respect to a reference or input video signal (10). The strength of edges or signal transitions (12; 13) in both the input and the output video signals (10; 11) are calculated (14) providing input and output edge signals (15; 16). By processing (19; 21, 22) the edge signals (15; 16) introduced edges (23) and omitted edges (24) in the output edge signal (16) are established. For each of the luminance and chrominance signals of a colour video signal first and second quality indicators are obtained from normalized values of the introduced edges (23) and the omitted edges (24), relative to the output edge signal (23) and the input edge signal (24) normalized by first and second normalization factors, respectively. By using smeared Sobel filtering, correlation of calculated MOS and observed MOS by human test persons reaches a value of above 0.9.

